Jackpile Reclamation Project

PUEBLO OF LAGUNA
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Reclamation Project Manager

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March 26, 1991

TO: Governor Harry Early

FROM: Jim Olsen, Jr., PE-Reclamation Project Manager

SUBJ: Final Location of Protore Placement-North Paguate Pit

All of the protore (low-grade) uranium ore material has been placed into the North Paguate Pit as per the design and Project requirements. The piles placed into the pit are as follows:

Project Designation	EIS/Anaconda Designation	Actual (CUBIC YDS.)	Grade (%U_3O_8)	Estimated[1] LBS. U_3O_8
NP-PS-13	SP-1	378,000	0.03	382,000
NP-PS-14	2-E	222,000	0.06	449,000
NP-PS-15	SP-1 C	232,000	0.03	235,000
NP-PS-16	SP-2 D	199,000	0.06	403,000
NP-PS-17	1-B	1,238,000	0.03	1,253,000
NP-PS-18	SP-2 C	906,000	0.06	1,835,000
SP-PS-01	SP-1 B	1,014,000	0.03	1,027,000
NONE	1-E		n/a (already within the pit confines)	
NONE	10--Dike		n/a (material was below protore radiation standard and was treated as "mine waste" with one foot of shale and 1.5 feet of soil cover.)	
TOTALS		*4,189,000*	*0.0395*	*5,584,000*

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[1] Estimated pounds U_3O_8 = Cubic Yards X 1.6875 X Grade X 20

Some amounts of contaminated soil and other waste fill were also placed within the pit confines; this also helped to bring the backfill elevation to the required height so that ground water recharge in the future will not contribute to any ponding in the pit bottom.

Should the protore (at some point in the future) become an economic mineral resource and need to be reexcavated, note that there is two and one-half (2.5) feet of cover over the top of the final protore grade. The top layer is approximately 1.5 feet of Tres Hermanos Sandstone (the soil cover which is tan in color); the other one-foot of material is the radon barrier composed of Mancos Shale (which is a dark gray to black material.) The protore material (Jackpile Sandstone) is a white and well-sorted with few rocks or boulders.

The contaminated soil materials that had to be excavated to meet the conditions of the Record of Decision were also placed unsegregated in the pit and could "dilute" the grade of the protore downward depending on how it was reexcavated. However, it can reasonably be assumed that, should the material be re-mined in the future, drilling and bulk sampling techniques would be employed to better identify the detailed locations and grades of the mineralized spots.

The attached map shows the "generalized" location and elevations based upon the final field survey conducted by the Laguna Construction Company in February, 1991. ***(SPECIAL NOTE:*** *Coordinates & elevations on this map utilize the survey grid and vertical control as per the Jacobs Engineering drawings; this survey system is NOT the same as that used by the Anaconda Company.)* The information is also stored on magnetic disk in LCC's computer files.

The estimated pounds of uranium oxide (U_3O_8) are greater than what would be expected to be "recovered" after milling. An 85% to 90% "recovery factor" would be appropriate when analyzing the expectations of the available mineral resource, yielding about 4.7 million pounds.

Please place this in the permanent records for future reference.

pc: Wil Hererra-Tribal Secretary
Allen Sedik, PE-BIA Project Engineer, DOI
David Sitzler-Mining Engineer, Bureau of Land Management, DOI
Neal D. Kasper-Laguna Construction Company
Yamie Leeds-Laguna Agency Superintendent
Lester K. Taylor-Pueblo Legal Counsel
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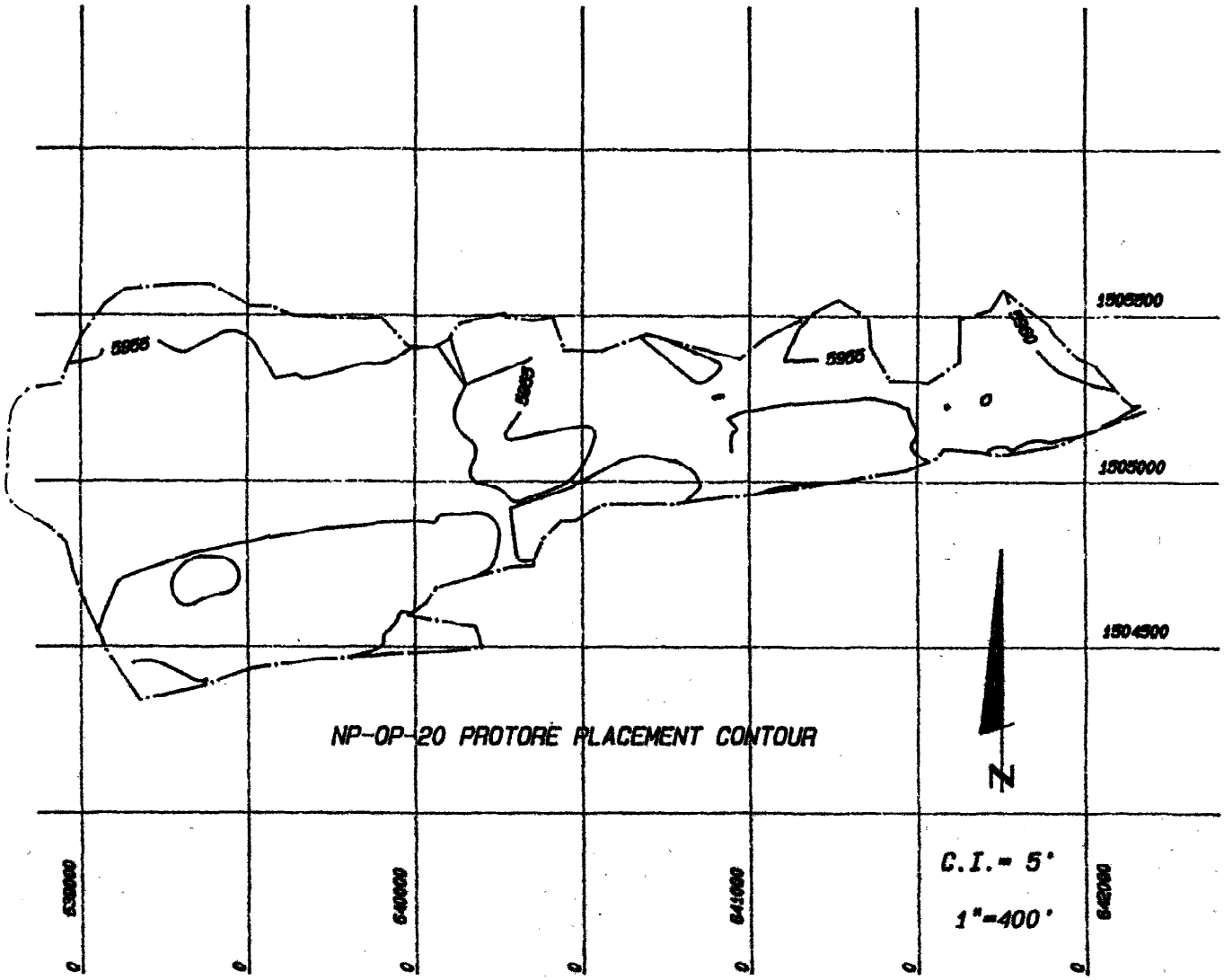
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NP-OP-20 PROTORE PLACEMENT CONTOUR
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C.I.= 5'
1"=400'
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